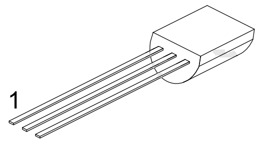
UNISONIC TECHNOLOGIES CO., LTD

SCRS

■ DESCRIPTION

The UTC **PCR406** silicon controlled rectifiers are high performance planner diffused PNPN devices. These parts are intended for low cost high volume applications.



TO-92

Lead-free: PCR406L
Halogen-free:PCR406G

■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free Plating	Halogen Free		1	2	3	
PCR406-5-x-T92-B	PCR406L-5-x-T92-B	PCR406G-5-x-T92-B	TO-92	K	G	A	Tape Box
PCR406-5-x-T92-K	PCR406L-5-x-T92-K	PCR406G-5-x-T92-K	TO-92	K	G	A	Bulk
PCR406-6-x-T92-B	PCR406L-6-x-T92-B	PCR406G-6-x-T92-B	TO-92	K	G	A	Tape Box
PCR406-6-x-T92-K	PCR406L-6-x-T92-K	PCR406G-6-x-T92-K	TO-92	K	G	A	Bulk

Note: Pin Assignment: K: Cathode G: Gate A: Anode

PCR406L-5-x-T92-B

(1)Packing Type	(1) B: Tape Box, K: Bulk
(2)Package Type	(2) T92: TO-92
(3)Rank	(3) x: refer to Classification of I_{GT}
(4)Lead Plating	(4) G: Halogen Free, L: Lead Free, Blank: Pb/Sn

■ ABSOLUTE MAXIMUM RATING

PARAMETER		SYMBOL	RATINGS	UNIT
Repetitive Peak Off-State Voltage (T_{OPR} =-40~ +125°C, R_{GK} =1kΩ)	PCR406-5	V_{DRM}	300	V
	PCR406-6		400	V
On State Current (T_C=40°C)		$I_{T(RMS)}$	0.8	A
Average On State Current (Half Cycle=180, T_C=40°C)		$I_{T(AV)}$	0.5	A
Peak Reverse Gate Voltage (I_{GR}=10uA)		V_{GRM}	1	V
Peak Gate Current (10us Max.)		I_{GM}	0.1	A
Gate Dissipation (20ms Max.)		$P_{G(AV)}$	150	mW
Operating Temperature		T_{OPR}	-40~ +125	°C
Storage Temperature		T_{STG}	-40~ +125	°C

Note Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Off State Leakage Current	T_J=125°C	I_{DRM}	V_{DRM}(R_{GK}=1KΩ)			0.1	mA
	T_J=25°C		V_{DRM}(R_{GK}=1KΩ)			1.0	μA
On State Voltage		V_T	I_T=0.4A			1.4	V
			I_T=0.8A			2.2	V
On State Threshold Voltage	T_J=125°C	$V_{T(TO)}$				0.95	V
On State Slops Resistance	T_J=125°C	R_t				600	m
Gate Trigger Current		I_{GT}	V_D=7V			200	μA
Gate Trigger Voltage		V_{GT}	V_D=7V			0.8	V
Holding Current		I_H	R_{GK}=1KΩ			5	mA
Latching Current		I_L	R_{GK}=1KΩ			6	mA
Gate Controlled Delay Time		T_{GD}	I_G=10mA, dIG/dt=0.1A/μs,			2.2	μs
Commutated Turn-Off Time	T_J=85°C	T_G	V_D=0.67×V_{DRM}, V_R=35V, I_T=$I_{T(AV)}$			200	μs

■ CLASSIFICATION OF I_{GT}

RANK	B	C	AA	AB	AC	AD
RANGE	50-100μA	100-200μA	8-15μA	15-20μA	20-25μA	25-50μA